

CLAIMS

I CLAIM:

1. A fishing spinning reel comprising:
 - a reel frame adapted to be mounted on a fishing rod;
 - a cranking handle mounted on and rotatable relative to said reel frame about a rotating axis for reeling in a fishing line;
 - a reciprocating spool spindle extending along a spindle axis transverse to the rotating axis, and disposed to be movable relative to said reel frame along the spindle axis, said reciprocating spool spindle including proximate and distal portions opposite to each other along the spindle axis, and an intermediate portion which is interposed between said proximate and distal portions, and which includes front and rear segments respectively proximate to said distal and proximate portions;
 - a rotary member which is mounted to surround and which is rotatable relative to said proximate portion about the spindle axis, and which is coupled relative to said cranking handle so as to rotate for reeling in the fishing line;
 - a spool member including an outer surrounding wall surface adapted to be wound by the fishing line in a reeling-in stage, and an inner surrounding wall surface which is opposite to said outer surrounding wall surface in radial directions relative to the spindle axis, and which is disposed to surround and to be rotatable relative to said intermediate portion in a reeling-out stage about the spindle axis, said spool member further including front and rear friction walls which are opposite to each other along the spindle axis, and which extend from said inner surrounding wall surface radially relative to the spindle axis;
 - a rear friction member mounted on said rear segment and having a first abutment area disposed to confront and to be brought into first and second frictional engagements with said rear friction wall, which are respectively of a

greater frictional force in the reeling-in stage and of a smaller frictional force in the reeling-out stage;

a front friction member mounted on and movable relative to said front segment along the spindle axis, and having a second abutment area which is disposed to confront and to be moved towards said front friction wall to bring said first abutment area into the first and second frictional engagements with said rear friction wall, thereby preventing said spool member from rotation relative to said intermediate portion in the reeling-in stage, and thereby permitting withdrawal of said second abutment area from said front friction wall so as to bring said first abutment area to the reeling-out stage, respectively; and

a friction force adjusting member retainingly movable relative to said distal portion between depressing and releasing positions where said friction force adjusting member holds said first abutment area in the first and second frictional engagements with said rear friction wall, respectively.

2. The fishing spinning reel of Claim 1, wherein said front and rear friction walls extend from said inner surrounding wall surface in radial directions, and respectively extend inwardly and outwardly, said front friction wall terminating at an inner peripheral wall which surrounds the spindle axis, said spool member further including a central tubular wall which extends from said inner peripheral wall rearwardly and which surrounds said intermediate portion.

3. The fishing spinning reel of Claim 2, further comprising an anti-friction member which is disposed between said central tubular wall and said intermediate portion so as to facilitate rotation of said spool member relative to said intermediate portion in the reeling-out stage.

4. The fishing spinning reel of Claim 3, wherein said spool member further includes a surrounding partition wall extending from said central tubular wall in the radial directions so as to cooperate with said intermediate portion and said central tubular wall to confine front and rear surrounding bearing chambers, said anti-friction member including front and rear bearings which are disposed in said front and rear surrounding bearing chambers, respectively.

5. The fishing spinning reel of Claim 2, wherein said reciprocating spool spindle further includes a barrier plate which extends radially and outwardly from said rear segment, said rear friction member including a flexible plate having said first abutment area to abut against said rear friction wall, and a rigid plate which is sandwiched between said flexible plate and said barrier plate such that said barrier plate is moved toward said front friction wall when said friction force adjusting member is moved from the releasing position to the depressing position so as to bring said first abutment area into the first frictional engagement with said rear friction wall.

6. The fishing spinning reel of Claim 5, wherein said distal portion is formed with an externally threaded surface, said friction force adjusting member including

a tubular stem which has a depressing end that abuts against said front friction member, a connecting end opposite to said depressing end along the spindle axis, and an internally threaded surface that extends from said depressing end toward said connecting end along the spindle axis and that engages threadedly said externally threaded surface, and

an operating knob which is connected to said connecting end, and which extends outwardly of said spool member so as to be externally operable to rotate said tubular stem relative to said distal portion to permit said externally threaded surface to screw-in and screw-out said internally threaded surface to the depressing and releasing positions, respectively, thereby moving said barrier plate relative to said front friction wall.

7. The fishing spinning reel of Claim 6, wherein said front friction member includes a flexible plate having said second abutment area, and a rigid plate which is sandwiched between said flexible plate and said depressing end.